

# Current Glider Track and Location

## 04/06/2011 @ 0550 Local

### Glider Position Forecast

#### Waypoints

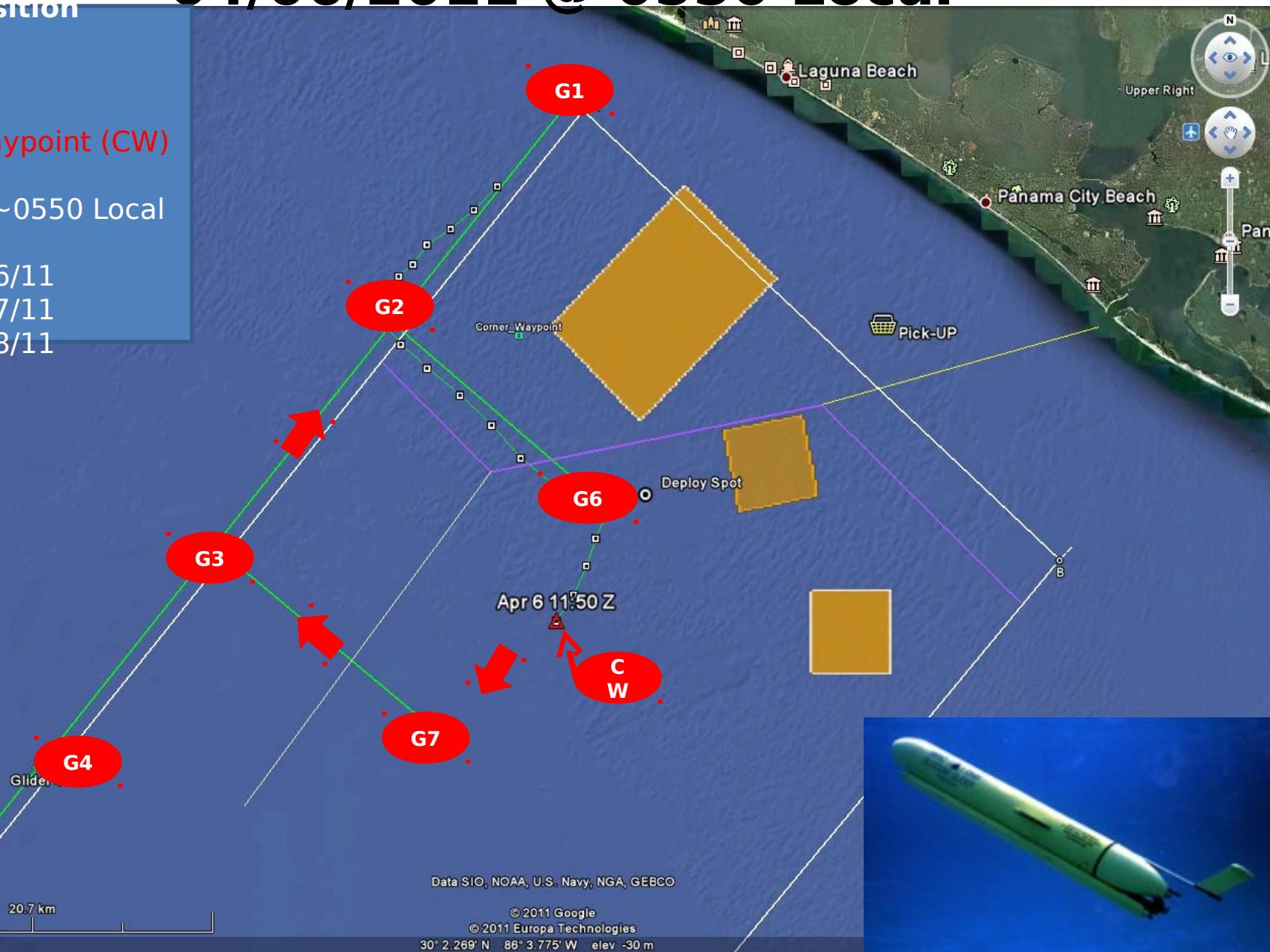
Current Waypoint (CW)

4/06/11 ~0550 Local

G7 4/06/11

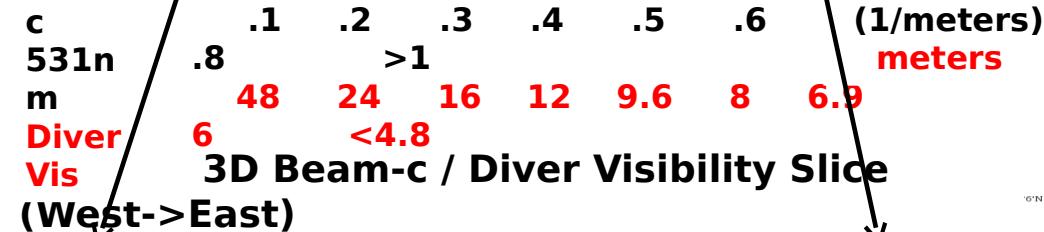
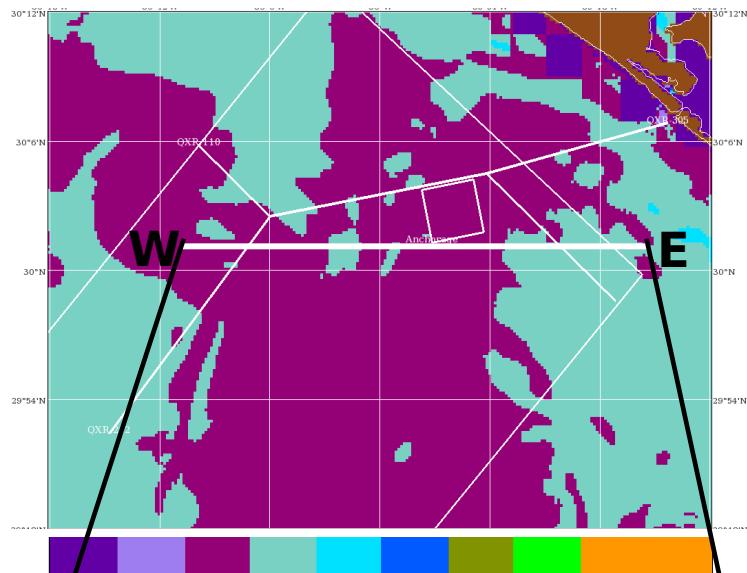
G3 4/07/11

G2 4/08/11

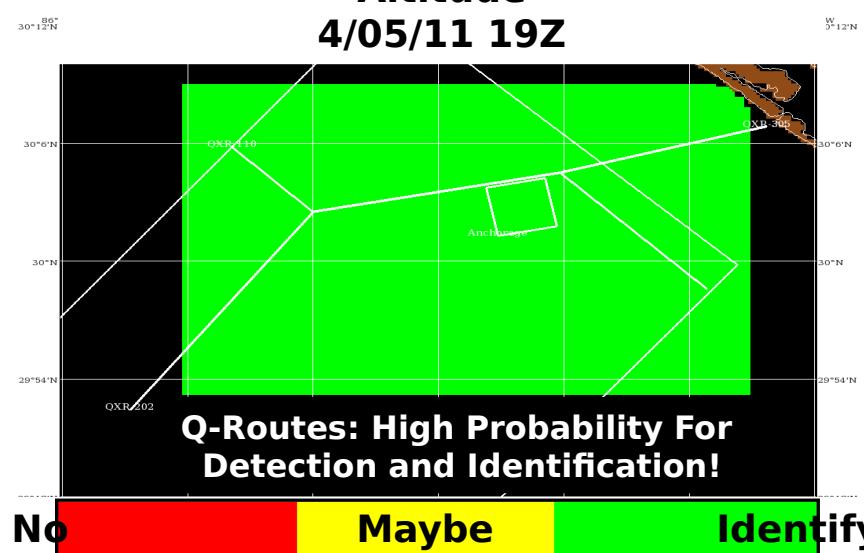


# Nowcast AQS-24 Support for April 05, 2011 19Z

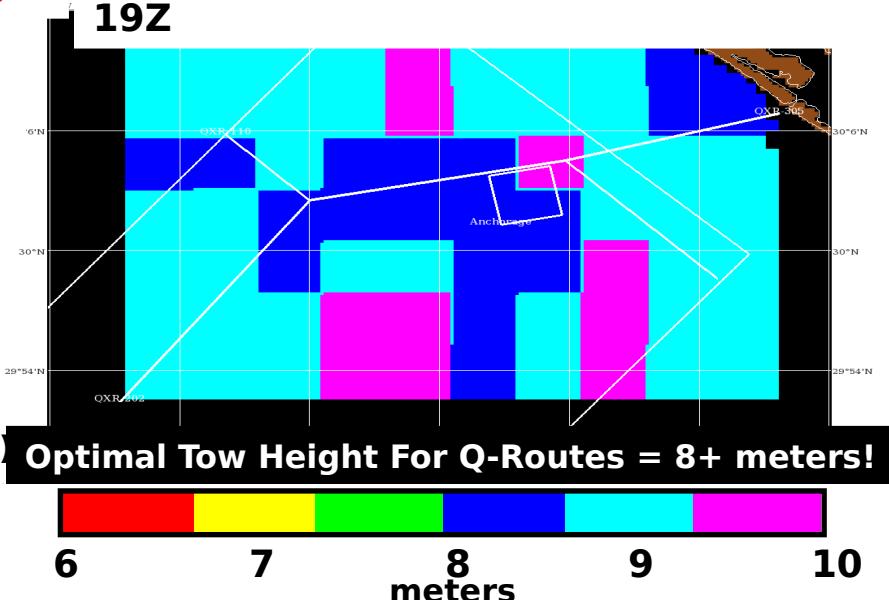
## Surface Beam-c / Diver Visibility 4/05/11 19Z



## Target Identification @ 6m Tow Altitude 4/05/11 19Z



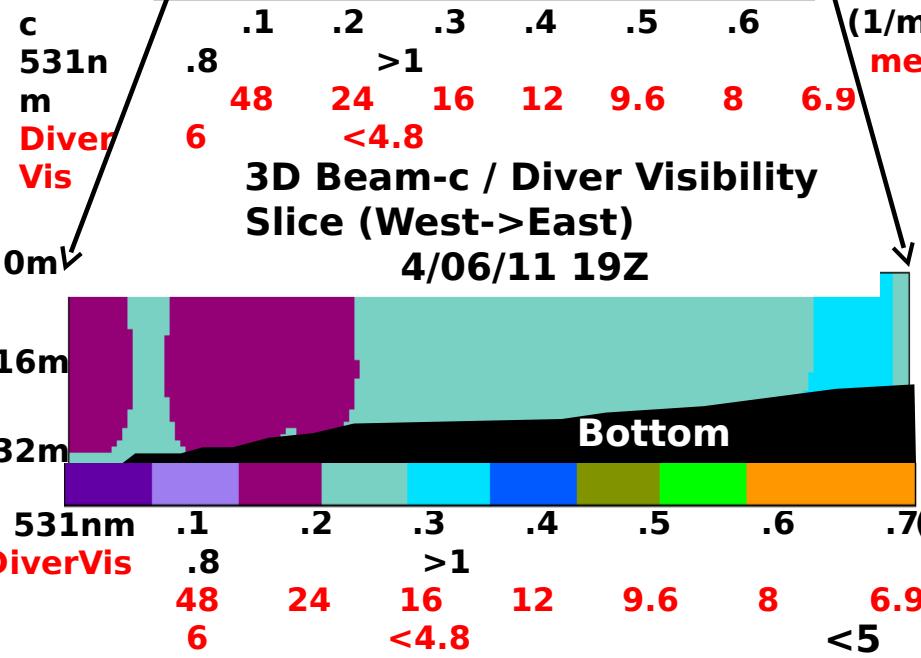
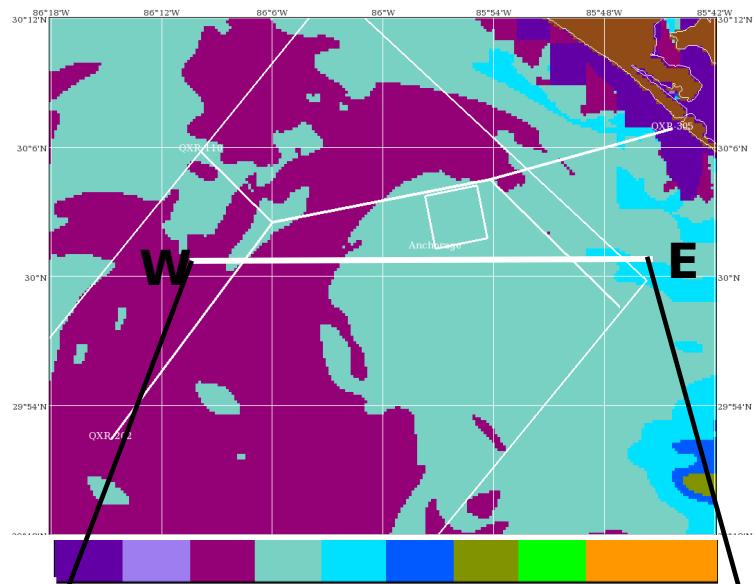
## Optimal Tow Altitude - 4/05/11



# 24 Hour Forecast AOS-24 Support for April 06, 2011 19Z

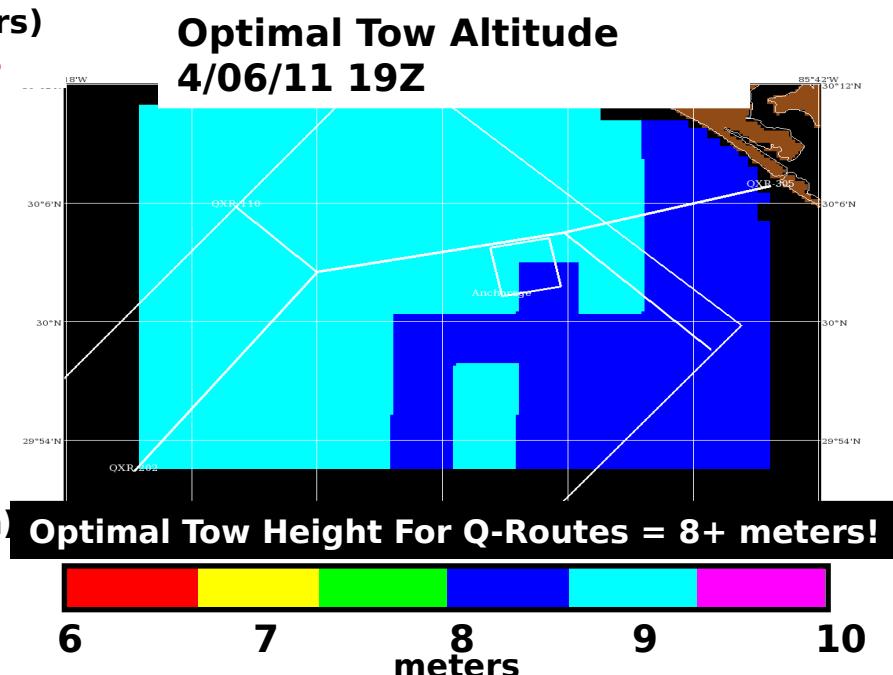
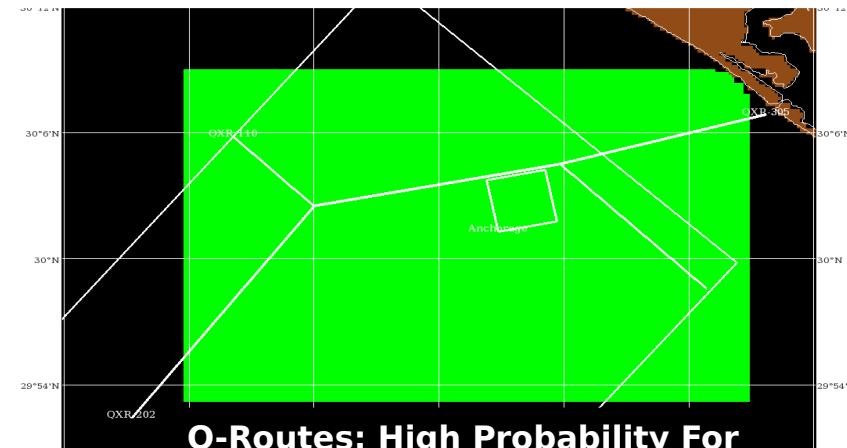
## Surface Beam-c / Diver Visibility

4/06/11 19Z



## Target Identification @ 6m Tow Altitude

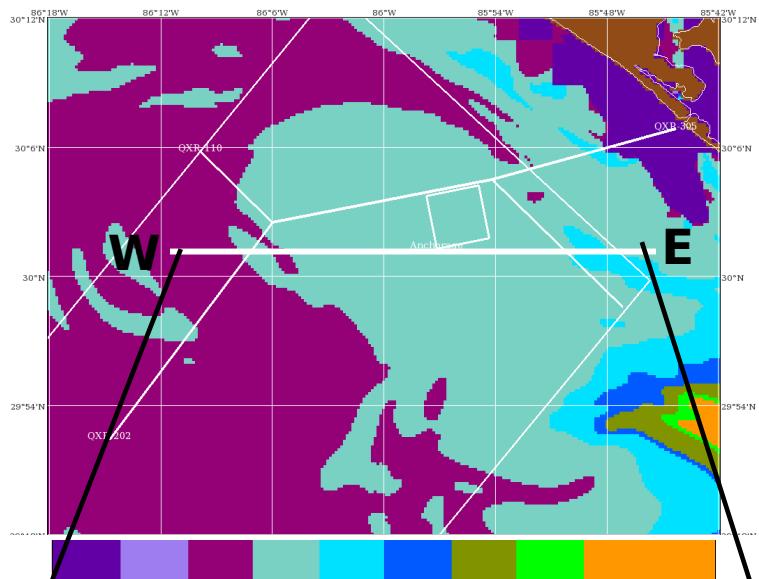
4/06/11 19Z



# 48 Hour Forecast AOS-24 Support for April 07, 2011 19Z

## Surface Beam-c / Diver Visibility

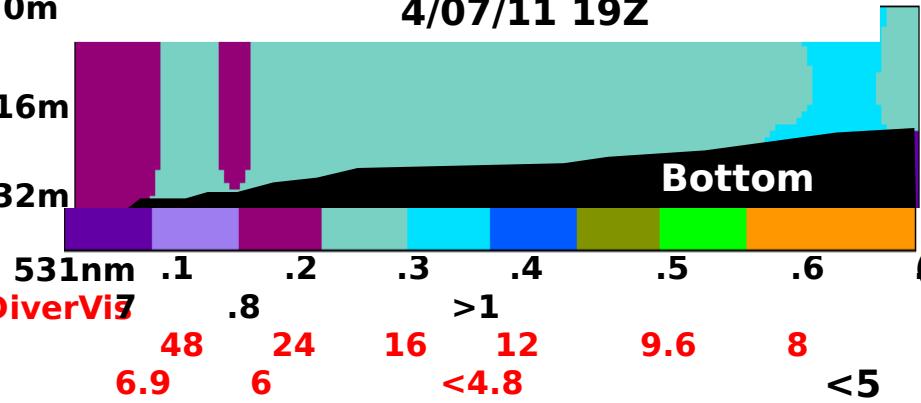
4/07/11 19Z



c  
531n .8 .1 .2 .3 .4 .5 .6  
m  
Diver  
Vis  
6 48 24 16 12 9.6 8 6.9  
(1/meters)  
meters

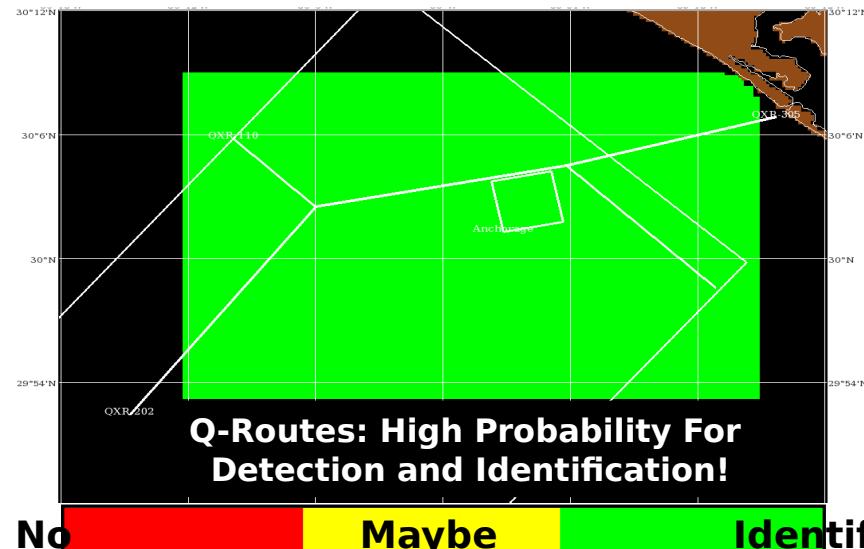
3D Beam-c / Diver Visibility  
Slice (West->East)

4/07/11 19Z



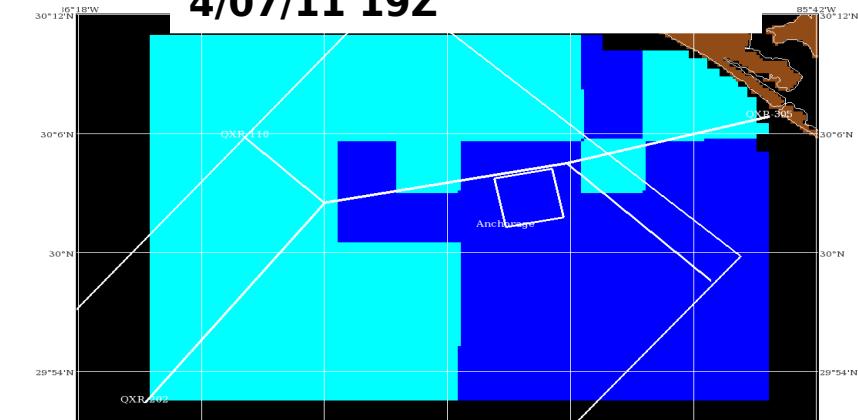
## Target Identification @ 6m Tow Altitude

4/07/11 19Z



No  
Maybe  
Identify

Optimal Tow Altitude  
4/07/11 19Z



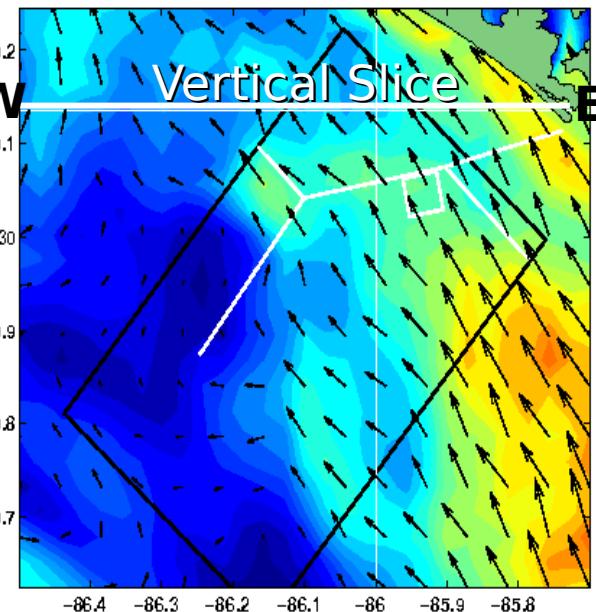
Optimal Tow Height For Q-Routes = 8+ meters!

6 7 8 9 10  
meters

# Physical Model Nowcast & Forecast – April 05, 2011

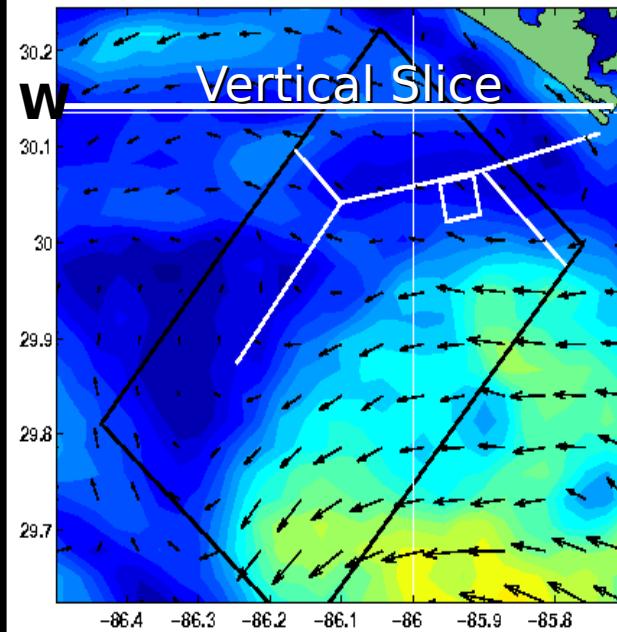
April 05, 2011 00Z

Depth Averaged Currents



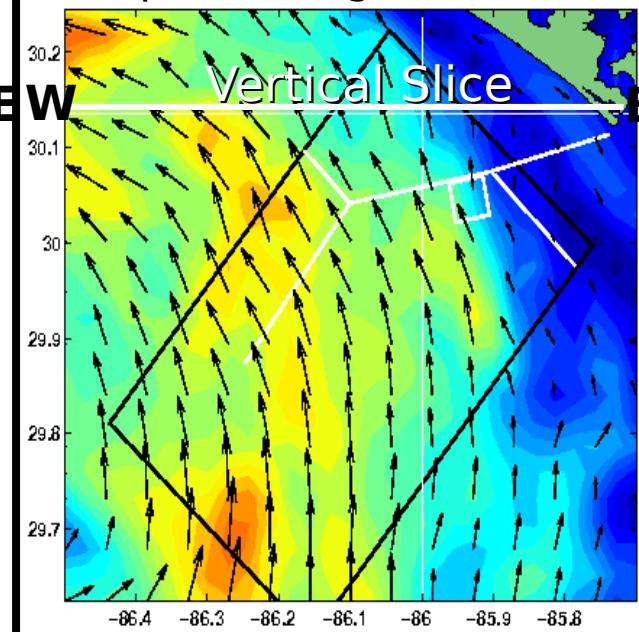
April 06, 2011 00Z

Depth Averaged Currents

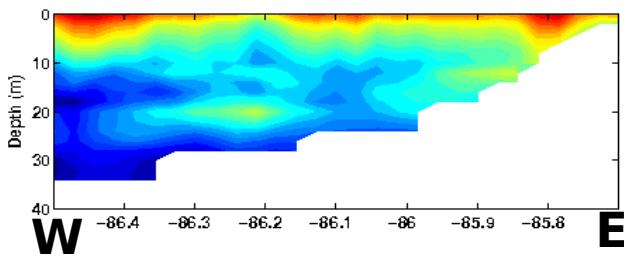


April 07, 2011 00Z

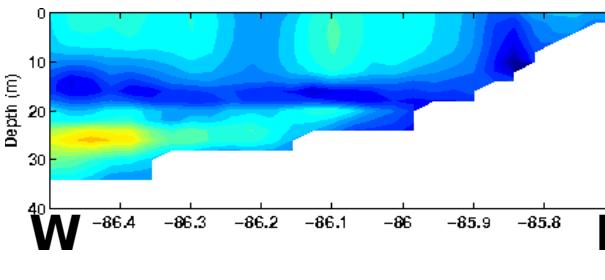
Depth Averaged Currents



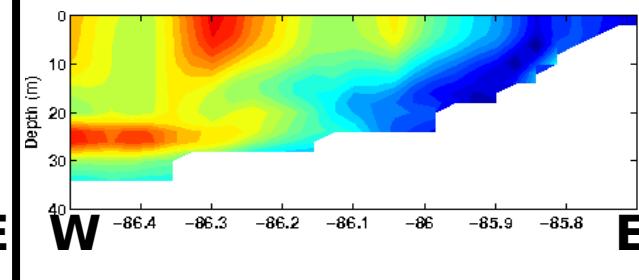
Vertical Slice Velocity @ 30.14N



Vertical Slice Velocity @ 30.14N

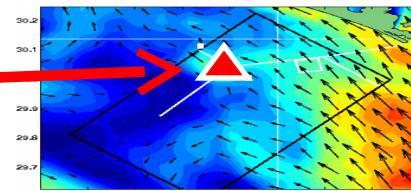


Vertical Slice Velocity @ 30.14N



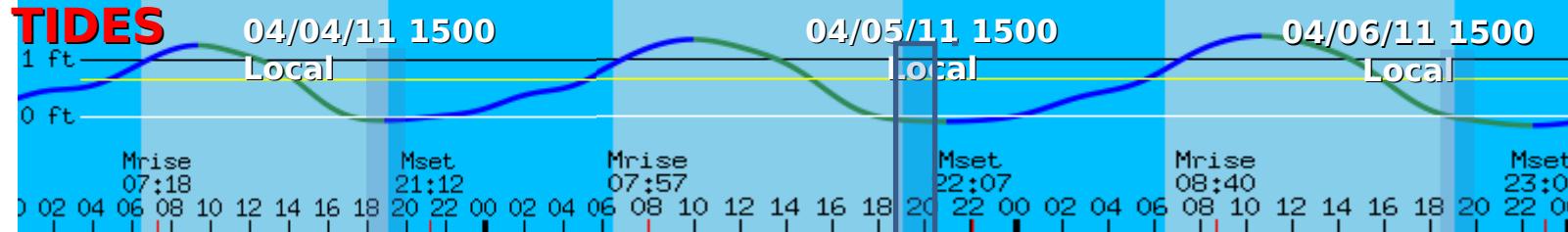
04/05/2011

**TIME SERIES @ 30.05N, 86.1W**  
**FORECAST OVER NEXT 48 HOURS**

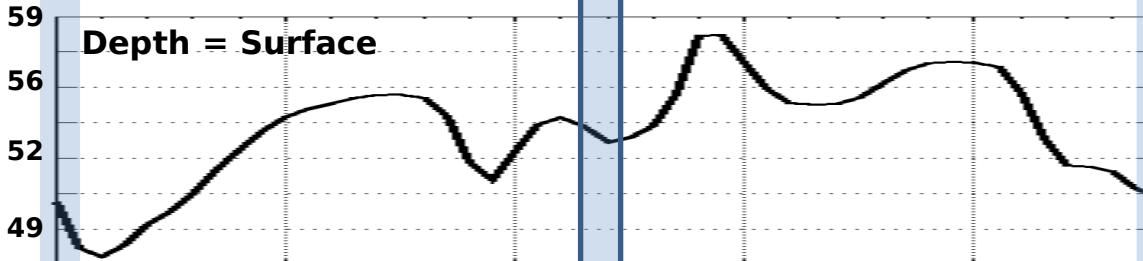


Panama City Beach (outside), St. A Panama City Beach (outside), St. Andrew Bay, Florida  
 04-05 04-05 04-06 04-06 04-07 04-07  
 09:19 18:47 09:55 20:51 10:37 22:25

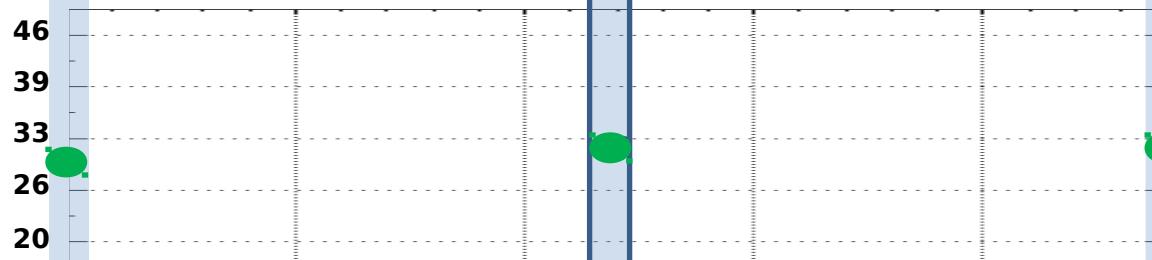
**TIDES**



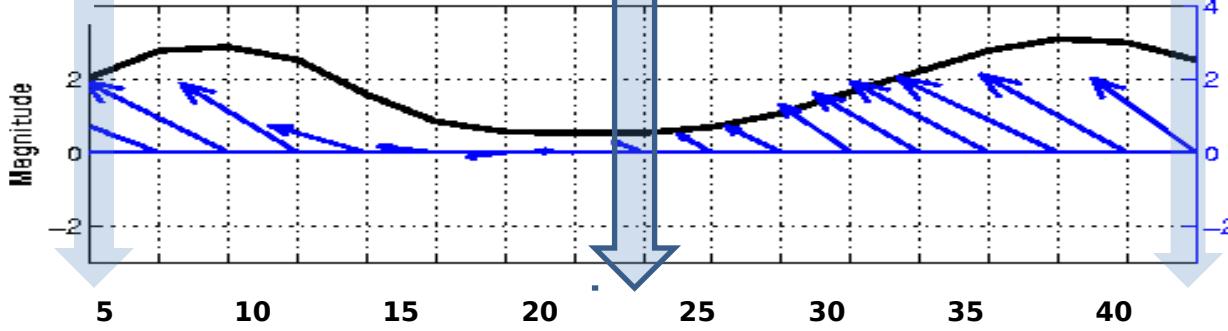
Horizontal Diver Visibility Forecast (Feet)



Optimal Tow Altitude (Feet)



Modeled Depth Averaged Currents (Knots)  
 =Solid Line



No Target ID?  
 ? Color Of Circle  
 Yes

Direction  
 Vectors

# Summary

1. Surface and subsurface turbidity (beam-c) range from 0.2-0.4  $\text{m}^{-1}$  in op-area for today (04/05/11 19Z), tomorrow (04/06/11) and for 48 hour forecast (04/07/11 19Z). (See Slides 2,3,4)
2. Surface and subsurface diver visibility (horizontal) range from 39-79 feet in op-area for today (04/05/11 19Z), tomorrow (04/06/11 19Z) and for 48 hour forecast (04/07/11 19Z). (See Slides 2,3,4)
3. System Performance: Today (04/05/11 19Z), tomorrow (04/06/11 19Z) and 48 Hour Forecast (04/07/11 19Z) expect ID and Detection over 100% in Q-Routes.
4. Today (04/05/11 19Z), tomorrow (04/06/11 19Z) and 48 hour forecast (04/07/11 19Z) predicted tow heights range from 26-33 feet in Q-Routes. (See Slides 2,3,4)
5. Time Series at Surface for Location 30.05N and 86.1W: Horizontal Diver Visibility ranges from 47 to 58 feet during period starting 04/05/11 19Z to 4/7/11 19Z. Optimal Tow Height is ~30 feet during same 48 hour period yielding high probability of target ID. Surface currents during the same 48

**Note: Good satellite scenes collected on 3/25/11, 4/01/11, & 4/03/11.**

## **Contact Info:**

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**Positive or Negative  
How are products being used?  
Changes/Needs/Suggestions**